

Amendments to the Claims:

The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Original) A method for detecting an infection of a mammal with an acid-resistant microorganism, wherein.
 - (a) a stool sample of the mammal is incubated with (aa) a receptor under conditions permitting a complex formation of an antigen from the acid resistant microorganism with the receptor; or (ab) two different receptors under conditions permitting a complex formation of an antigen from the acid-resistant microorganism with the two receptors and wherein the receptor according to (aa) or the receptors according to (ab) specifically bind(s) an antigen which shows, at least with some mammals, a structure after passage through the intestine that corresponds to the native structure or the structure against which a mammal produces antibodies against after being infected or immunized with the acid-resistant microorganism or an extract or lysate thereof or a protein therefrom or a fragment thereof or a synthetic peptide produces antibodies; and
 - (b) wherein the formation of at least one antigen-receptor complex according to (a) is detected.
2. (Original) The method according to claim 1, wherein the microorganism is an acid-resistant bacterium.
3. (Original) The method according to claim 2, wherein the acid-resistant bacterium is a bacterium belonging to the genus *Helicobacter*, *Campylobacter* or the genus *Mycobacterium*.
4. (Original) The method according to claim 3, wherein the bacterium is a bacterium of the species *Helicobacter pylori*, *Helicobacter hepaticus*, *Campylobacter jejuni* or *Mycobacterium tuberculosis*.

5. (Currently Amended) The method according to ~~any one of claim[s] 1 to 4~~, wherein the antigen is the antigen of a catalase, a urease or a metalloproteinase, preferably of *H. Pylori*.
6. (Currently Amended) The method according to ~~any one of claim[s] 1 to 5~~, wherein the receptor/the receptors is (are) (an) antibody(ies), (a) fragment(s) or derivative(s) thereof or (an) aptamer(s).
7. (Currently Amended) The method according to ~~any one of claim[s] 1 to 6~~, wherein for the detection additionally a mixture of receptors is used, wherein the mixture of receptors has the function of catching the antigen if the receptor is used as detector of the antigen, and the mixture has the function of detecting the antigen if the receptor is used as catcher of the antigen.
8. (Original) The method of claim 7, wherein the mixture of receptors is a polyclonal antiserum.
9. (Original) The method according to claim 8, wherein the polyclonal antiserum is obtained against a lysate of the microorganism.
10. (Original) The method according to claim 9, wherein the lysate is a lysate with enriched antigen.
11. (Currently Amended) The method according to claim ~~9 or 10~~, wherein the lysate is a lysate with depleted immunodominant antigens.
12. (Original) The method according to claim 8, wherein the polyclonal antiserum is obtained against a purified or a (semi-)synthetically produced antigen.
13. (Original) The method according to claim 12, wherein the antigen is an antigen of a catalase, a urease or a metalloproteinase.
14. (Currently Amended) The method according to ~~any one of claim[s] 1 to 13~~, wherein the receptor and/or the mixture of receptors bind(s) (a) conformation epitope(s).
15. (Currently Amended) The method according to ~~any one of claim[s] 5 to 14~~, wherein the heavy chain of the antibody binding a catalase epitope has at least one of the following CDRs, preferably the CDR3 and still more preferably all of the three following CDRs:

CDR1:	<u>NYWHH SEQ ID NO.:9</u>
CDR2:	<u>YINPATGSTSYNQDFQD SEQ ID NO.:10</u>
CDR3:	<u>EGYDGFDS SEQ ID NO.:11</u>

16. (Currently Amended) The method according to claim 15, wherein the DNA sequence encoding the heavy chain of the antibody has at least one of the following CDRs, preferably the CDR3 and still more preferably all of the three following CDRs:

CDR1:	AACTACTGGA TTCAC <u>SEQ ID NO.:12</u>
CDR2:	TACATTAATC CTGCCACTGG TTCCACTTCT TACAATCAGG ACTTTCAGGA C <u>SEQ ID NO.:13</u>
CDR3:	GAGGGGTACG ACGGGTTTGA CTCC <u>SEQ ID NO.:14</u>

17. (Currently Amended) The method according to ~~any one of claim[s] 5 to 14~~, wherein the light chain of the antibody binding a catalase epitope has at least one of the following CDRs, preferably the CDR3 and still more preferably all of the three following CDRs:

CDR1:	SASSSVNYMY <u>SEQ ID NO.:15</u>
CDR2:	DTSKLAS <u>SEQ ID NO.:16</u>
CDR3:	QQWSSNPYT <u>SEQ ID NO.:17</u>

18. (Currently Amended) The method according to claim 17, wherein the DNA sequence encoding the light chain of the antibody has at least one of the following CDRs, preferably the CDR3 and still more preferably all of the three following CDRs:

CDR1:	AGTGCCAGCT CAAGTGTAAG TTACATGTAC <u>SEQ ID NO.:18</u>
CDR2:	GACACATCCA AATTGGCTTC T <u>SEQ ID NO.:19</u>
CDR3:	CAGCAGTGGA GTAGTAATCC GTACACG <u>SEQ ID NO.:20</u>

19. (Currently Amended) The method or test according to ~~any one of claim[s] 5 to 24~~, wherein the heavy chain of the antibody binding a catalase epitope exhibits at least one of the following CDRs, preferably the CDR3 and more preferably all three of the following CDRs:

CDR1:	DTYVH <u>SEQ ID NO.:21</u>
CDR2:	KIDPANGKTKYDPIFQA <u>SEQ ID NO.:22</u>
CDR3:	PIYYASSWFAY <u>SEQ ID NO.:23</u>

20. (Currently Amended) The method according to claim 19, wherein the DNA sequence encoding the heavy chain of the antibody exhibits at least one of the following CDRs, preferably CDR3 and more preferably all three of the following CDRs:

CDR1:	<u>GACACCTATGTGCAC SEQ ID NO.:24</u>
CDR2:	AAGATTGATCCTGCGAATGGTAAACTAAATATGACCC <u>GATATTCAGGCC SEQ ID NO.:25</u>
CDR3:	<u>CCCATTTATTACGCTAGTTCCTGGTTTGCTTAC SEQ ID NO.:26</u>

21. (Currently Amended) The method according to ~~any one of claim[s] 5 to 14~~, wherein the light chain of the antibody binding a catalase epitope exhibits at least one of the following CDRs, preferably CDR3 and more preferably all three of the following CDRs:

CDR1:	<u>KASQDVGTSVA SEQ ID NO.:27</u>
CDR2:	<u>WTSTRHT SEQ ID NO.:28</u>
CDR3:	<u>QYSSSPT SEQ ID NO.:29</u>

22. (Currently Amended) The method according to claim 21, wherein the DNA sequence encoding the light chain of the antibody exhibits at least one of the following CDRs, preferably CDR3 and more preferably all three of the following CDRs:

CDR1:	<u>AAGGCCAGTCAGGATGTGGGTA CTTCTGTTGCC SEQ ID NO.:30</u>
CDR2:	<u>TGGACATCCACCCGGCACACT SEQ ID NO.:31</u>
CDR3:	<u>CAGCAATATAAGCAGCTCTCCCAAG SEQ ID NO.:32</u>

23. (Currently Amended) The method according to ~~any one of claim[s] 5 to 14~~, wherein the heavy chain of the antibody binding an epitope of the β -urease exhibits at least one of the following CDRs, preferably CDR3

CDR1:	<u>GFTFSSHFM SEQ ID NO.:33</u>
CDR2:	<u>SISSGGDSFYPSLKG SEQ ID NO.:34</u>

CDR3:	D YSWYALDY <u>SEQ ID NO.:35</u>
or:	
CDR1:	GYAFSTSWMN <u>SEQ ID NO.:36</u>
CDR2:	RIYPGDGD T NYNGKFKG <u>SEQ ID NO.:37</u>
CDR3:	EDAYYSNPYSLDY <u>SEQ ID NO.:38</u>

24. (Currently Amended) The method according to claim 23, wherein the DNA sequence of the antibody encoding the heavy chain exhibits at least one of the following CDRs, preferably CDR3 and more preferably all three of the following CDRs:

CDR1:	GG-CTACGCATTC AGTACCTCCT-GGATGAAC <u>SEQ ID NO.:39</u>
CDR2:	CGGATTTATC CTGGAGATGG AGATACTAAC TACAATGGGA AGTTCAAGGG-C <u>SEQ ID NO.:40</u>
CDR3:	GAG-GATGCCTATT ATAGTAACCC CTATAGTTTG-GACTAC <u>SEQ ID NO.:41</u>
or:	
CDR1:	GG-ATTCAC T TTTC AGTAGCCATT TCATGTCT <u>SEQ ID NO.:42</u>
CDR2:	TCCATTAGTA GTGGTGGTGA CAGTTTCTAT CCAGACAGTC TGAAGGGC <u>SEQ ID NO.:43</u>
CDR3:	GACTAC-TCTTGGTATG-CTTTGGACTA-C <u>SEQ ID. NO.:44</u>

25. (Currently Amended) The method according to ~~any one of~~ claim[s] 5 [to 14], wherein the light chain of the antibody binding an epitope of the β -urease exhibits at least one of the following CDRs, preferably CDR3 and more preferably all three of the following CDRs:

CDR1:	RASQSIGTRIH <u>SEQ ID NO.:45</u>
CDR2:	Y GSE S IS <u>SEQ ID NO.:46</u>
CDR3:	QQSNTWPLT <u>SEQ ID NO.:47</u>

or:	
CDR1:	<u>HASQNIN VWLS SEQ ID NO.:48</u>
CDR2:	<u>KASNLHT SEQ ID NO.:49</u>
CDR3:	<u>QQGRSYPLT SEQ ID NO.:50</u>

26. (Currently Amended) The method according to claim 25, wherein the DNA sequence encoding the light chain of the antibody exhibits at least one of the following CDRs, preferably CDR3 and more preferably all three of the following CDRs:

CDR1:	<u>A GGGCCAGTCA GAGCATTGGC ACAAGAATAC AC SEQ ID NO.:51</u>
CDR2:	<u>TAT GGTTC TGAGT CTATCTCT SEQ ID NO.:52</u>
CDR3:	<u>CAACAA AGTAATACCT GGCCGCTCAC G SEQ ID NO.:53</u>
or:	
CDR1:	<u>C ATGCCAGTCA GAACATTAAT GTTTGGTTAA GC SEQ ID NO.:54</u>
CDR2:	<u>AAG GCTTCCAACT TGCACACA SEQ ID NO.:55</u>
CDR3:	<u>CAACAG GGTCGAAGTT ATCCTCTCAC G SEQ ID NO.:56</u>

27. (Currently Amended) The method according to ~~any one of claim[s] 5 to 26~~, wherein the antibodies in the variable regions of the light and heavy chains have the amino acid sequences shown in ~~Figures~~ SEQ ID NO. 1 and SEQ ID NO. 2, SEQ ID NO. 3 and SEQ ID NO. 4, SEQ ID NO. 5 and SEQ ID NO. 6 or SEQ ID NO. 7 and SEQ ID NO. 8.
28. (Currently Amended) The method according to ~~any one of claim[s] 5 to 27~~, wherein the coding regions of the variable regions of the light and heavy chains have the DNA sequences shown in ~~Figures~~ SEQ ID NO. 1 and SEQ ID NO. 2, SEQ ID NO. 3 and SEQ ID NO. 4, SEQ ID NO. 5 and SEQ ID NO. 6 or SEQ ID NO. 7 and SEQ ID NO. 8.
29. (Currently Amended) The method according to ~~any one of claim[s] 1 to 28~~, wherein the following steps are carried out with the stool sample before incubation with the antibodies:
- (a) resuspending the stool sample at a ration of 1:3 to 1:25, preferably approximately at a ratio of 1:5 to 1:10, particularly preferably 1:5, in resuspension buffer and

- (b) mixing on a vortex mixer.
30. (Currently Amended) The method according to ~~any one of claim[s] 1 to 29~~, wherein the detection of the formation of the at least one antigen-receptor complex/antigen-receptor receptor-mixture complex in step (b) takes place by means of an immunological method.
31. (Currently Amended) The method according to ~~any one of claim[s] 1 to 30~~, wherein the detection of the formation of the at least one antigen-receptor complex/antigen receptor-mixture complex in step (b) takes place by means of ELISA, RIA, Western blot or an immunochromatographic method.
32. (Currently Amended) The method according to claim 30 ~~or 31~~, wherein in RIA or in ELISA the same receptor is used for both binding to the solid phase and detecting the epitope.
33. (Currently Amended) The method according to ~~any one of claim[s] 1 to 32~~, wherein the receptor is fixed to a support.
34. (Currently Amended) The method according to ~~any one of claim[s] 1 to 33~~, wherein the receptor is a monoclonal murine antibody.
35. (Currently Amended) The method according to ~~any one of claim[s] 1 to 34~~, wherein the method is a one step ELISA.
36. (Currently Amended) The method according to ~~any one of claim[s] 1 to 34~~, wherein the method is a three-step ELISA
37. (Original) The method according to claim 33, wherein the material of the support is a porous material.
38. (Currently Amended) The method according to claim 33 ~~and 37~~, wherein the material of the support is a test strip.
39. (Currently Amended) The method according to claim[s] 33, ~~37 or 38~~, wherein the material of the support consists of cellulose or a derivative of cellulose.
40. (Currently Amended) The method according to ~~any one of claim[s] 1 to 39~~, wherein breath condensate, gastric gas, tooth plaque, saliva, mucous smear, biopsy, whole blood or serum is used for the detection instead of a stool sample.
41. (Currently Amended) The method according to ~~any one of claim[s] 1 to 40~~, wherein the method is a automated method.
42. (Currently Amended) The method according to ~~any one of claim[s] 1 to 41~~, wherein the mammal is a human.

43. (Original) A monoclonal antibody, fragment or derivative thereof which has a V region that shows a combination of the CDRs illustrated in any one of claims 15 to 26.
44. (Currently Amended) The monoclonal antibody, fragment or derivative thereof according to claim 43 which has at least one of the V regions shown in ~~Figures 1~~ SEQ ID NO.: 1 and SEQ ID NO.: 2, SEQ ID NO.: 3 and SEQ ID NO.: 4, SEQ ID NO.: 5 and SEQ ID NO.: 6, or SEQ ID NO.: 7 and SEQ ID NO.: 8.
45. (Currently Amended) The monoclonal antibody, fragment or derivative thereof according to ~~claims 43 and~~ claim 44, which is a murine antibody or a fragment or derivative thereof or a chimeric, preferably a humanized antibody or a fragment or derivative thereof.
46. (Original) An aptamer which specifically binds the same epitope as the monoclonal antibody, the fragment or derivative thereof according to any one of claims 43 to 45.
47. (Original) An epitope which is specifically bound by the monoclonal antibody, fragment or derivative thereof according to any one of claim 43 or 45 or the aptamer according to claim 46.
48. (Original) The antibody, fragment or derivative thereof which specifically binds the epitope according to claim 47.
49. (Currently Amended) Diagnostic composition containing at least one receptor as defined in ~~any one of the aforementioned claim[s]~~ 1, optionally fixed to a support material, wherein said diagnostic composition optionally further contains a mixture of receptors as defined in any one of the aforementioned claims, optionally fixed to a support material.
50. (Currently Amended) A test device for the detection of at least one of the epitopes as defined in ~~any one of the aforementioned claim[s]~~ 47 comprising
 - (a) at least one receptor as defined in ~~any one of the aforementioned claim[s]~~ 1 fixed to a support material;
 - (b) a device for preparing and analyzing stool samples; and optionally
 - (c) a mixture of receptors as defined in ~~any one of the aforementioned claim[s]~~ 7.
51. (Currently Amended) A test device for the detection of at least one epitope as defined in any one of the aforementioned claims comprising
 - (a) at least one receptor as defined in ~~any one of the aforementioned claim[s]~~ 1, wherein the receptor is conjugated with colloidal gold, latex particles or other colouring particles the size of which typically ranges between 5 nm and 100 nm, preferably between 20 nm and 60 nm, particularly preferably between 40 nm and 60 nm (gold) and 200 nm and 500 nm (latex);
 - (b) a device for preparing and analyzing stool samples; and optionally
 - (c) a mixture of receptors as defined in ~~any one of the aforementioned claim[s]~~ 7.

52. (Currently Amended) A kit containing
- (a) at least one receptor as defined in ~~any one of the aforementioned~~ claim[s] 1, optionally fixed to a support; optionally furthermore
 - (b) a device for preparing and analyzing stool samples; and optionally
 - (c) a mixture of receptors as defined in ~~any one of the aforementioned~~ claim[s] 7.
53. (Currently Amended) A composition, preferably a pharmaceutical preparation containing at least one of the ~~above-described~~ receptors as defined in claim 1, optionally in combination with a pharmaceutically acceptable support and/or diluent.
54. (Original) A package containing the diagnostic composition according to claim 49, the test device according to claims 50, 51 or the kit according to claim 52.